UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/584,117	05/10/2007	Ernst-Werner Wagner	1-39509	9843

43935 7590 02/04/2010
FRASER CLEMENS MARTIN & MILLER LLC
28366 KENSINGTON LANE
PERRYSBURG, OH 43551

EXAMINER	
CERNOCH, STEVEN MICHAEL	
ART UNIT	PAPER NUMBER
3752	

NOTIFICATION DATE	DELIVERY MODE
02/04/2010	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

miller@fraser-ip.com
sloan@fraser-ip.com
clemens@fraser-ip.com

Office Action Summary	Application No.	Applicant(s)	
	10/584,117	WAGNER, ERNST-WERNER	
	Examiner	Art Unit	
	STEVEN CERNOCH	3752	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 November 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-23* is/are pending in the application.

4a) Of the above claim(s) *21-23* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *10 May 2007* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

Applicant's election without traverse of group I, claims 1-20 in the reply filed on 11/24/2009 is acknowledged.

Specification

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: claims 5 and 6 require consideration of "the n50 value" however this is not defined anywhere in the specification.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 5 and 6 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Both claims 5 and 6 require "consideration of the n50 value of the target area" however, there is no description of definition of an "n50 value" in the disclosure at all.

Claims 5 and 6 are rejected under 35 U.S.C. 112, first paragraph, as based on a disclosure which is not enabling. "Consideration of the n50 value of the target area" is critical or essential to the practice of the invention, but not included in the claim(s) is not

enabled by the disclosure. See *In re Mayhew*, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976). Described in the claims in question, it is required that the device operate with consideration of the air exchange rate of the target area, however, this is taken into account but only especially in consideration of this "n50 value" which is undefined.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-11 and 14-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Wagner et al. (US Pub No 2002/0040940).

Re claim 1, Wagner et al. shows an inerting method for extinguishing a fire in a closed room (paragraph 0002) in which the oxygen content in the closed room is reduced within a given time (0013) to a specific inerting level, wherein said inerting level is kept to a certain level within a given regulation range, in particular the re-ignition prevention level (0004).

Re claim 2, Wagner et al. shows wherein said inerting level corresponds to said re-ignition prevention level (paragraph 0004).

Re claim 3, Wagner et al. shows wherein the upper threshold of oxygen content in the regulation range is smaller than or, at maximum, equal to the re-ignition prevention level (paragraph 0004).

Re claim 4, Wagner et al. shows wherein the amplitude of the oxygen content in the regulation range has a height of approximately 0.2% by volume (paragraph 0004).

Re claim 5, Wagner et al. shows wherein the regulating of the oxygen content for lowering said oxygen content to the inerting level and/or for keeping said oxygen content at the re-ignition prevention level ensues with consideration of the air exchange rate of the target area, especially in consideration of the n50 value of the target area and/or the pressure difference between the target area and the environment (paragraph 0005).

Re claim 6, Wagner et al. shows wherein the calculating of the amount of extinguishing agent for lowering said oxygen content to the inerting level and/or for keeping said oxygen content at the re-ignition prevention level ensues with consideration of the air exchange rate of the target area, especially in consideration of the n50 value of the target area and/or the pressure difference between the target area and the environment (paragraph 0005).

Re claim 7, Wagner et al. shows in which lowering the oxygen content ensues by means of feeding an oxygen- displacing gas into the target area, wherein the regulating of the supply of oxygen-displacing gas takes into consideration the air/gas pressure in the target area (paragraph 0005).

Re claim 8, Wagner et al. shows in which lowering the oxygen content ensues by means of feeding an oxygen- displacing gas into the target area, wherein the regulating of the supply of oxygen-displacing gas for lowering the oxygen content to the inerting

level and/or for maintaining said oxygen content takes into consideration the base inertization level at the time the flooding begins (paragraph 0004).

Re claim 9, Wagner et al. shows in which lowering the oxygen content ensues by means of feeding an oxygen- displacing gas into the target area, wherein the regulating of the supply of oxygen-displacing gas is dependent on the current oxygen content, current fire-extinguishing agent concentration respectively, in the target area (paragraph 0013).

Re claim 10, Wagner et al. shows the regulating of the supply of oxygen-displacing gas is dependent on the oxygen content prior to beginning the lowering of said oxygen content to the specific inerting level (paragraph 0013).

Re claim 11, Wagner et al. shows the regulating of the supply of oxygen-displacing gas ensues pursuant a specific flooding trajectory (paragraph 0013).

Re claim 14, Wagner et al. shows the oxygen content in the target area is lowered by introduction of an oxygen-displacing gas from a reservoir kept ready for the purpose (paragraph 0013).

Re claim 15, Wagner et al. shows in which the oxygen-displacing gas is made available by means of a production system (paragraph 0013).

Re claim 16, Wagner et al. shows wherein the oxygen-displacing gas for lowering the oxygen content to the specific inerting level is provided from a reservoir and the oxygen-displacing gas to keep the inerting level at the re-ignition prevention level is provided from a production system (paragraph 0013).

Re claim 17, Wagner et al. shows wherein the re-ignition prevention level is determined dependent on the characteristic fire load of the target area (paragraph 0005), especially dependent on the material present within said target area (0004).

Re claim 18, Wagner et al. shows the re-ignition prevention level (R) is determined dependent on any given equipment and/or machines accommodated within the target area and their operating states (paragraph 0024).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 12, 13 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wagner et al. (US Pub No 2002/0040940) as applied to claims 1-11 and 14-18 above, and further in view of Mitchell et al. (US Pat No 6,095,251).

Re claim 12, Wagner et al. teaches lowering the oxygen content but does not teach doing so in a preset time.

However, Mitchell et al. does teach a preset time (col. 2, lines 42-44).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have the motivation to modify the apparatus of Wagner et al. with the predetermined time of Mitchell et al. in order to prevent re-ignition (col. 2, lines 31-32).

Re claim 13, Wagner et al. teaches that lowering the oxygen content to the inerting level is contingent upon the base inertization level at the time the flooding begins but does not teach that the time to do so is contingent upon the base inertization level at the time the flooding begins.

However, Mitchell et al. does teach that the time to do so is contingent upon the base inertization level at the time the flooding begins (col. 2, lines 42-44).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have the motivation to modify the apparatus of Wagner et al. with the predetermined time of Mitchell et al. in order to prevent re-ignition (col. 2, lines 31-32).

Re claim 20, Wagner et al. teaches lowering the oxygen content but does not teach that lowering the oxygen content begins at Time t0 of an early fire detection.

However, Mitchell et al. does teach that lowering the oxygen content begins at Time t0 of an early fire detection (col. 2, lines 40-42).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have the motivation to modify the apparatus of Wagner et al. with the predetermined time of Mitchell et al. in order to prevent re-ignition (col. 2, lines 31-32).

Claims 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wagner et al. (US Pub No 2002/0040940) as applied to claims 1-11 and 14-18 above, and further in view of Ford et al. (US Pat No 6,029,751)

Re claim 19, Wagner et al. teaches lowering the oxygen content is lowered depending on the equipment present in the target area but does not teach that the equipment is brought into a pre-defined operational state prior to lowering said oxygen content.

However, Ford et al. does teach that the equipment is brought into a pre-defined operational state prior to lowering said oxygen content (col. 5, lines 23-25).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have the motivation to modify the apparatus of Wagner et al. with the pre-defined operational state of the equipment of Ford et al. shut it down (col. 5, lines 19-28).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to STEVEN CERNOCH whose telephone number is (571)270-3540. The examiner can normally be reached on IFP.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Len Tran can be reached on (571)272-1184. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/S. C./
Examiner, Art Unit 3752

/Dinh Q Nguyen/
Primary Examiner, Art Unit 3752